

REMARKS

Applicant has carefully reviewed the Office Action mailed February 1, 2006 and offers the following remarks to accompany the above amendments.

Applicant has amended claim 17 to address the rejection under 35 U.S.C. § 112(2).

Applicant has also amended claim 18 to correct a typographical error.

Rejection of Claim 17 Under 35 U.S.C. § 112(2)

Claim 17 was rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. Specifically, the Patent Office opined that claim 17 is unclear as to how the port can determine which presented media gateway would be available or how it is adapted to listen for a service change message. Applicant has amended claim 17 to make clear that the port is not determining that the media gateway is available, but rather the port is adapted to listen for a Service Change message indicative of a previously presented media gateway becoming available. This amendment alleviates this rejection.

Rejection of Claims 1-21 Under 35 U.S.C. § 102(e) – Munoz et al.

Claims 1-21 were rejected under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent No. 6,741,585 B1 to Munoz et al. (hereinafter "Munoz"). Applicant respectfully traverses. For a reference to be anticipatory, the reference must disclose each and every claim element. Further, the elements of the reference must be arranged as claimed. MPEP § 2131. The requirement that each and every element be disclosed in the manner claimed is a rigorous standard that the Patent Office has not met in this case.

As Applicant has discussed in previous responses to office actions for this application, the present invention is designed to allow media gateways and media gateway controllers residing on separate IP networks to communicate with one another by translation of addressing information in "control protocol messages." The present invention parses a packet to find the control protocol layer, finds the IP address buried therein, converts the IP address, and places the converted address back into the packet. The conversion or translation of the IP address is done via a network address translation (NAT) scheme. A Media Gateway Control (MEGACO) protocol is one example of a control protocol used by the present invention to find and translate

an IP destination address for setting up communications between a media gateway and a media gateway controller.

As is well known by those of ordinary skill in the art, control protocol messages, including MEGACO, are contained in the "application layer" of the TCP/IP stack. See, for example, the description of MEGACO on page 3 of the ipGen document attached as Exhibit A, wherein the MEGACO stack is clearly positioned above the TCP or UDP transport layer. Note also that page 1 of the ipGen publication describes MEGACO as a control protocol between the media gateway controller and the media gateway. By extension, it is clearly understood that the control protocol is an "application layer" protocol. The term "control protocol message" has specific connotations to someone of ordinary skill in the art as evidenced by Exhibit A, and thus the Patent Office's interpretation must be one consistent with this connotation. MPEP § 2111.01.

Because a control protocol is an application layer, high level protocol, it is typically "buried" fairly deep in the protocol stack, and may be surrounded by text. Thus, any information expressed as a number in a control protocol message, such as an IP address 10.1.2.3 for example, is typically textually embedded. Thus, before the present invention, NAT devices were not provided with the capability of resolving IP addresses from textually embedded information in control protocol messages. The present invention provides NAT capability to resolve IP address information from control protocol messages contained in the application layer.

The present invention offers two exemplary techniques by which the control protocol messages may be inspected and translated. The first technique places the NAT intelligence in the firewall or router that handles the control messages. The second technique routes all of the control messages to a server that handles the NAT intelligence.

Munoz does not disclose, teach, or suggest translating address information in control protocol messages for routing of messages. Munoz teaches the older methods of determining address information from messages transported below the application layer in the OSI or TCP/IP stack. Thus for this reason alone, Munoz does not anticipate the present invention and this rejection must be withdrawn.

At column 1, line 37 through column 4, line 31, Munoz discusses a pull-based prior art message routing scheme using "address resolution messages" for addressing messages in networks. Address resolution messages are communicated using an "Address Resolution Protocol" (ARP). It is well known by one of ordinary skill in the art that ARP is a protocol used

to map IP network addresses to hardware addresses used by a data link protocol, and that the protocol operates below the network layer as part of the interface between an OSI network and an OSI link layer. (See Exhibit B, page 1, paragraph 1 for the definition of ARP; See also, Exhibit C- Definition of Address Resolution Protocol (ARP) as being provided in the network layer of the TCP/IP stack below the application layer). Thus by definition, ARP cannot be a "control protocol" like that used by the claimed invention, since ARP resides in a networking layer below the application layer.

Next at column 4, line 33 through column 5, line 22, Munoz discusses another prior art message routing scheme using "Next Hop Resolution Protocol" (NHRP). As evidenced on page 2 of Exhibit D entitled "NHRP (Next Hop Resolution Protocol)," "NHRP is an address resolution protocol" (ARP). Thus, NHRP cannot be a "control protocol" like the one used by the claimed invention, since NHRP resides in a networking layer below an application layer as evidenced by Exhibits B and C, referenced above.

Next, starting at column 5, line 25, Munoz discusses a push-based prior art addressing scheme using "Address Resolution Advertisements" (ARA), as opposed to pull-based addressing schemes. As evidenced by Exhibit E, pages 3 and 11, ARAs are used to distribute link-layer associations of routers. Again, by definition, ARAs cannot be "control protocol messages" such as those provided in the claimed invention, since ARP resides in a networking layer below an application layer.

Lastly starting at column 6, line 50, Munoz presents the solution that is the subject of his disclosure. Munoz discloses an addressing scheme whereby addresses in a format of a first network are encapsulated or mapped into an address format of a second network to provide network communication interoperability. At column 6, line 64, Munoz states that one protocol to accomplish his goal is use of ARP. As stated above, ARP is not a "control protocol" like that used by the claimed invention. At column 7, line 20, Munoz states that another protocol to accomplish his goal is use of the "Internet Group Management Protocol" (IGMP). As evidenced by Exhibit F, IGMP is a network layer protocol in the TCP/IP stack, which is not in the application layer like that of the "control protocol messages" provided in the claimed invention.

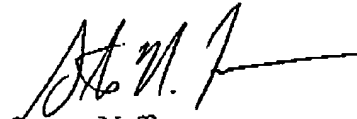
Thus, as discussed above, Munoz does not disclose, teach, or suggest translating IP addresses within control protocol messages to control routing of address based messages. The present application is now in condition for allowance and such action is respectfully requested.

The Examiner is encouraged to contact Applicant's representative regarding any remaining issues in an effort to expedite allowance and issuance of the present application.

Respectfully submitted,

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